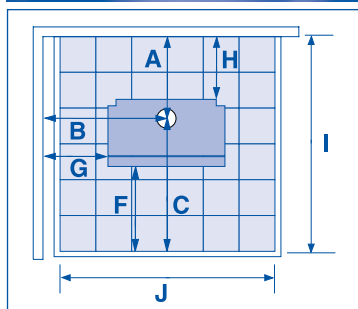


Wood Fire Installation & Owner's Operation Manual



metrofires

ECO Freestanding Models

- | | | | | |
|----------------|------|-----------------|-------------------|----------------|
| • ECO Tiny Ped | • R1 | • Wee Rad | • Xtreme Ped | • ECO Euro Rad |
| • ECO Tiny Rad | • R2 | • ECO Wee Ped | • Xtreme Rad | • ECO Euro Ped |
| | | • ECO Wee Curve | • Xtreme Rad Base | |

| | | | |
|---|-----|-------------------------------------|----|
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⚠ WARNING! Important Information

- **WE HIGHLY RECOMMEND YOU READ THIS ENTIRE MANUAL AS INCORRECT OPERATION AND/OR LACK OF MAINTENANCE WILL VOID THE WARRANTY**
- **The appliance and flue-system shall be installed in accordance with AS/NZS2918 and the appropriate requirements of the relevant building code or codes**
- **Any modification of the appliance that has not been approved in writing by the testing authority is considered to be in breach of the approval granted for compliance with AS/NZS 4013 and will void the warranty**

This Metro wood fire has been tested to and complies with AS/NZS2918:2001 when installed in accordance with this manual. Please ensure you are fully conversant with this relevant standard and the contents of this manual. Correct installation is critical to the safe operation and performance of this wood fire.

Please take particular note of the following:

- It is recommended that Metro's be installed with a Metro ECO flue system which has been developed to enhance the performance of Metro wood fires. Any alternative flue system must have a minimum flue pipe length of 4.2 metres of 150mm diameter flue pipe.
- The 150mm active flue pipe must be fully encased from the ceiling to the underside of the flashing cone at the top of the flue system, (i.e. there must not be any 150mm flue pipe exposed).

⚠ CAUTION! Important Information

- **Mixing of appliance or flue-system components from different sources or modifying the dimensional specification or components may result in hazardous conditions. Where such action is considered, the manufacturer should be consulted in the first instance.**
- **Do not install a Metro fire if there is any sign of visible damage to the product**
- **This manual must be left with the home owner**

- All flue pipe joints must be sealed and riveted. The bottom of the flue pipe in particular **MUST** be fully sealed into the flue outlet of the Metro wood fire.
- In New Zealand, the Metro must be bolted through the floor protector into the floor to comply with the seismic restraint provisions of AS/NZS2918:2001
- All Metro's are extremely heavy, varying in weight from 85kgs up to 150kgs. During the installation process do not lift the appliance by yourself, and take care not to damage the panel coating.
- Please take care when lifting the Metro into place onto the hearth or floor protector as point loading may break tiles and/or scratch surfaces.

Assembling your Metro wood fire

All Metro wood fires are packed in a single heavy-duty carton, and tek screwed to a wooden pallet. Having removed the packaging and located this manual, familiarise yourself with the illustrations on pages 2 & 3, and proceed as detailed below.

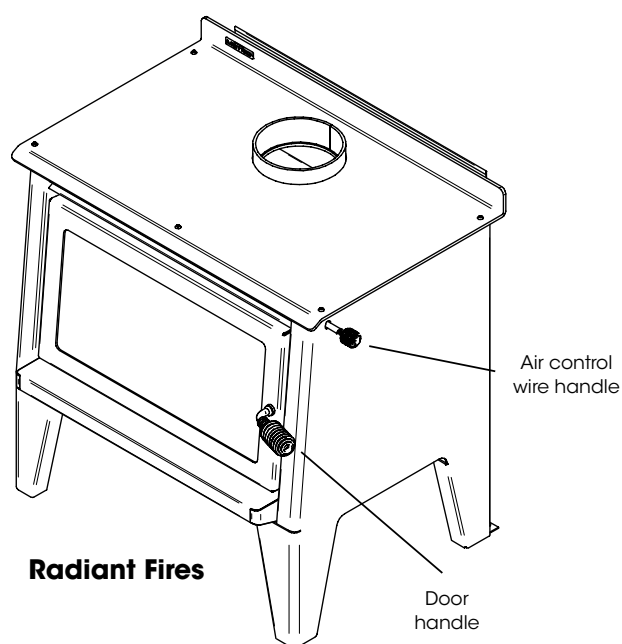
Please note: you should only assemble this wood fire if you are suitably experienced in wood fire assembly and installation.

Note: The Metro carton shows the model Metro you are about to install, enabling you to select the appropriate model's assembly instructions.

Metro Radiant Fires

These Metro's are supplied virtually fully assembled. Packed inside the firebox you will find bricks in a cardboard wrapper, a wire door handle and the air control wire handle.

- Remove the two tek screws located at the base of each rear leg which secure the Metro to the wooden pallet, and carefully "walk" the Metro off the pallet.
- Open the door fully and fit the side bricks to each side of the firebox. Location lugs are fitted to the base and rear of the firebox to retain the side bricks in position. Refer to Diagram 2.
- Attach the door handle to the door latch assembly by screwing it on clockwise.
- Attach the air control wire handle by screwing it on clockwise.



Radiant Fires

Assembling your Metro wood fire

Metro Pedestal Fires

To minimise freight damage, the pedestal base has been packaged inside the firebox. Please note: you should only assemble this wood fire if you are suitably experienced in wood fire assembly and installation.

To safely assemble your Metro, please proceed as follows: -

- Safely remove straps by cutting straps with scissors.
- Lift off carton, turn upside down (use to hold all discarded packaging).
- Lift off the top grill and place somewhere safe. Be careful not to chip the enamel coating.
- Open the door 90 degrees and lift the door off the hinge and place somewhere safe. Be careful not to chip the enamel coating.
- Remove the pedestal packed in a cardboard wrap
- Remove the pedestal mount plate
- Remove pedestal heat shield (Xtreme & Euro models only)
Note: Xtreme is taped to rear heatshield and Euro is inside firebox.
- Remove the side bricks, door handle and the bolt bag
- Remove the 2 tek screws at the base of the inside of the firebox that are fixing the wood fire to the pallet.
- It is recommended that 2 people work together with this step. Grab the underneath top of the firebox door opening with one hand, holding the flue spigot with the other, slowly lift the front of the wood fire all the way back and rest the wood fire on it's rear heat shield on the floor. Remove the packaging pallet.
- Xtreme & Euro models only - Fit the pedestal heat shield over the 4 bolts as shown in Diagram 1, with the open edge facing the front of the Metro (up)
- Position the pedestal with its front facing over the 4 bolts and fit the washers and nuts supplied, check to ensure the pedestal is correctly aligned and securely tighten the nuts
- It is recommended that 2 people work together with this step. Grab the flue spigot with one hand and the other hand underneath the top of the firebox door opening, lift upwards standing the wood fire onto it's pedestal.
- Re-fit the door and top grill
- Open the door fully and fit the side bricks to each side of the fire box. Location lugs are fitted to the base and rear of the firebox to retain the side bricks in position. Refer to Diagram 2.

Note: The ECO Tiny Ped model utilises a slightly different pedestal to that detailed in Diagram 1. The rear panel on the pedestal must be turned around with the return fold facing back the opposite way. This creates the mounting plate.

All Metro Models

Check to ensure the top baffle is in its correct position in the top chamber of the firebox. It should be resting on four support lugs (two on each side of the firebox). The baffle must be hard back against the rear of the firebox with the "promet extension" (white board) or return front steel edge of the baffle facing forward as illustrated in Diagram 2.

Diagram 1

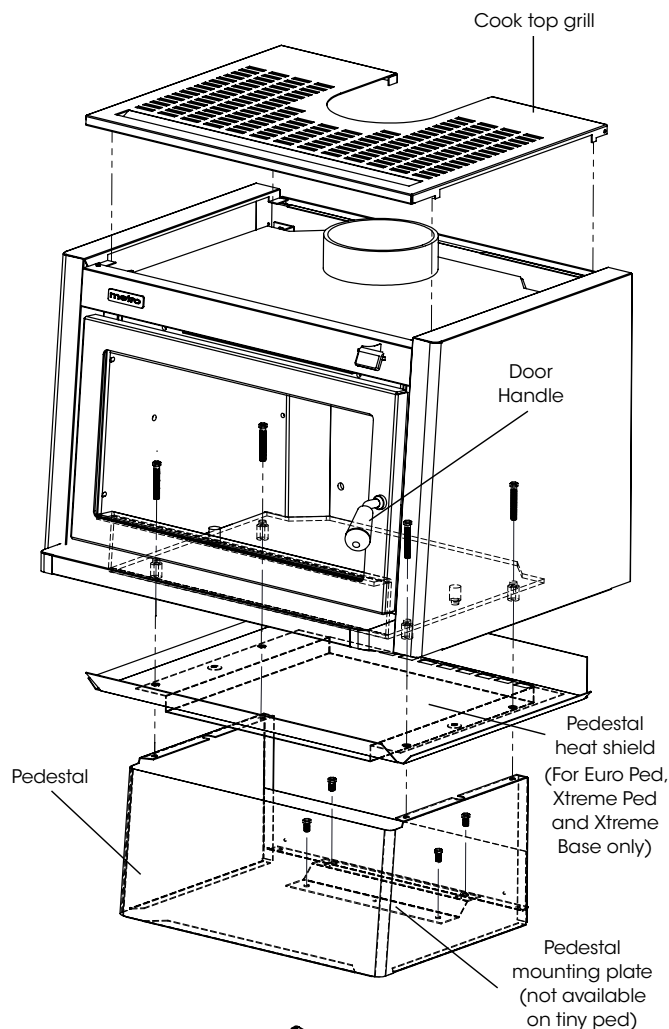
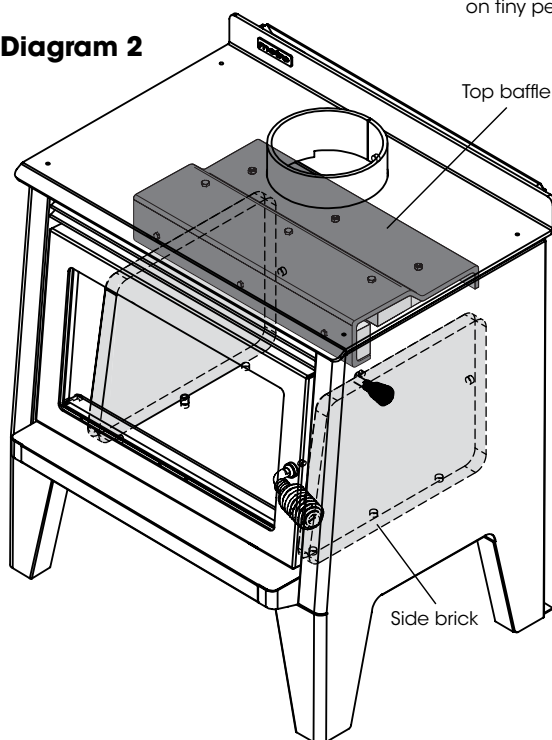


Diagram 2



Note: The ECO Wee Ped has an additional "3rd brick" which fits to the rear wall of the firebox, locating under/into a bracket provided in the middle of the firebox's rear wall, under the top baffle.

Direct vent option

The ECO Euro Ped, ECO Wee Curve and ECO Euro Rad models have the option to be installed as "Direct Vent" appliances, thereby drawing all primary and secondary combustion air from outside the home. Once connected, this direct venting option ensures the air that is heated within the home, stays in the home improving efficiency and reducing fuel usage.

Note: Connection of the Metro's direct vent inlet to outside the home is optional. If not connected these Direct Vent models still offer greatly improved performance and lower emissions due to the unique pre-heated air path for all primary and secondary combustion air that these models consume.

Direct Vent Options

Three "Direct Vent kits" are available to connect the ECO DV Metro to an air supply from outside the living environment of the home. The kits available include;

- DV WALL KIT – For installations when the Metro is installed against an outside wall.
- DV FLOOR KIT– For installations onto a floor which has a free air supply below it.
- DV CEILING KIT– For installations when the Metro is installed against an internal wall and on a concrete floor

(DV Ceiling kit goes into the wall cavity, then up inside the wall into the ceiling cavity, where the air supply is drawn from)

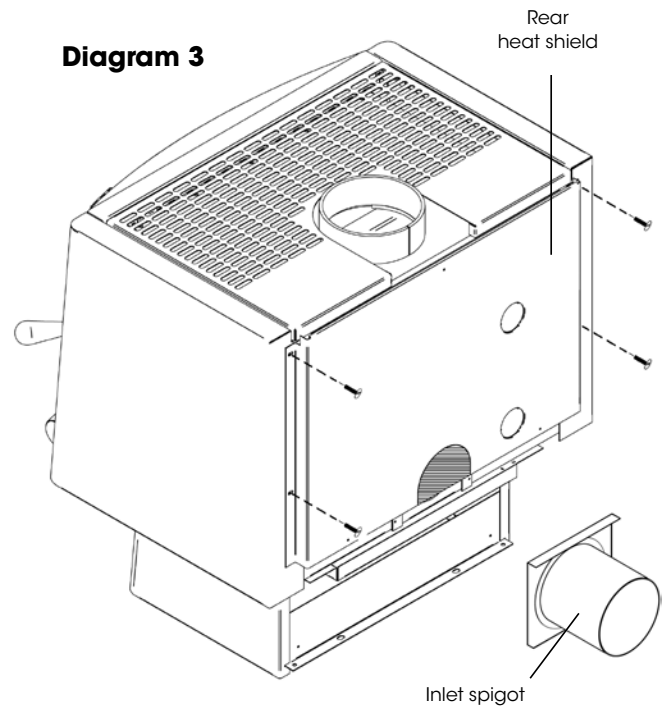
Installing the Direct Vent Option

Remove the rear heatshield from the Metro wood fire by unscrewing the four self tapping screws illustrated in Diagram 3 and proceed as follows;

1. Remove the section of panel illustrated with a "hatch", from the mid/bottom section of the rear heatshield. This section to be removed has been pre-punched and only requires a few small tabs to be cut.
2. Take the "inlet spigot" supplied in the "Direct Vent kit" and slide it fully down into position into the brackets provided on the rear of the firebox.
3. Replace the Metro's rear heatshield with the four screws previously removed.

The Metro wood fire is now ready for installation once you have pre-fitted the Direct Vent kit into the wall or floor. Full instructions for this procedure are supplied with the Direct Vent kits.

Diagram 3



Floor protector size, construction and fitting

Pioneer manufacture an extensive range of what Pioneer term "Ash Floor Protectors" which comply with the minimum floor protector requirement of AS/NZS 2918:2001, and can be installed with any freestanding Metro wood fire.

Metro freestanding wood fires do not require an insulated floor protector as they comply with the minimum floor protector requirements of AS/NZS 2918:2001. These minimum floor protector requirements are;

- They must be of adequate size to give appropriate wall, rear and front clearances/projections as detailed below and in the chart illustrated on page 6.

Note;

- The floor protector must extend 200mm horizontally to the rear and each side directly below the door opening, and 300mm forward of the door opening.
- The upper surface of the floor protector must be made of non combustible material.
- A suitable floor protector for a Metro freestanding wood fire is therefore any non-combustible material which could include;
- Ceramic tiles with grouted joints fixed directly to timber flooring.
- A sheet of toughened glass, panel steel etc. laid directly onto a wooden or other combustible floor.

Note: If being installed onto a concrete or non-combustible floor a floor protector is not required.

Metro Radiant Series

Lift the Metro onto the floor protector and using a tape measure to ensure that the minimum wall clearances and front floor protector projections as detailed in the chart on page 6 are met or exceeded. Once the Metro's location on the floor protector is established and if the installation is in New Zealand, seismic restraint is required.

Using masonry anchors if the floor protector is on a concrete floor or coach bolts if a wooden floor, secure through the holes provided at the base, behind both rear legs.

Note: The anchors must pass through the floor protector and securely anchor the Metro to the floor.

Metro Pedestal Series

These models (excluding the ECO Tiny Ped) are supplied with a "pedestal mounting plate". Refer to Diagram 1 on page 3. Place the mounting plate on the floor protector with the two slots at the rear. A flue centre hole is marked on this plate and the chart on page 6 enables you to locate the position of the Metro without placing the Metro onto the floor protector. Once the location of this mounting plate is established, secure it through the floor protector into the floor using both of the two holes provided.

Use masonry anchors if the floor protector is on a concrete floor or coach bolts if a wooden floor.

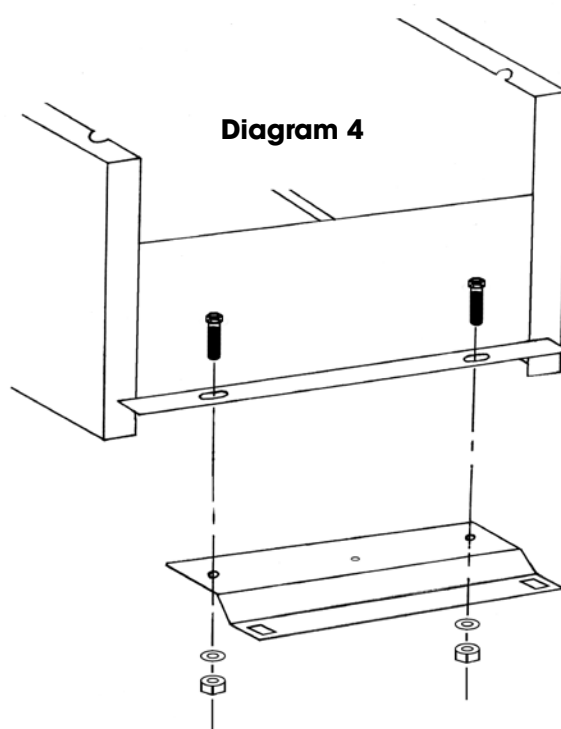
Note: The anchors must pass through the floor protector and securely anchor the Metro to the floor.

Alternative Metro Mount Plate Installation

For installations when it is desirable to position the assembled Metro prior to bolting down, it is possible to "invert" the mounting plate and use it as a means of bolting the Metro directly to the floor, through the floor protector. Refer to Diagram 4 and note;

1. Rotate the mount plate 180 degrees.
2. Remove the two "slide nuts" from the rear face of the mount plate.
3. Secure the mount plate to the pedestal with 6mm bolts through holes provided as illustrated.

You can then bolt down the Metro through the two rectangular slots in the rear edge of the mount plate. These slots are more accessible than bolting direct through the pedestal, and it also eliminates the need for spacers.



Clearance chart

Minimum clearances

All Metro wood fires comply with AS/NZS 2918:2001. Minimum clearances shown below are detailed in millimetres, with a Pioneer double flue shield fitted to the appliance. Measurements are taken from the following reference points as illustrated:

- From the nearest combustable wall or surface (A, B, D, E, G, H)
- From the Metro's flue centre (A, B, C, D)
- From the outermost point of the Metro's cabinet construction (E, F, G, H)
- To the edge of the ash floor protectors non-combustible surface (C, F, I, J, K, L, M)

AS/NZS 2918:2001 allows for a reduction in minimum clearances as detailed in Section 3, tables 3.1 and 3.2 of the standard.

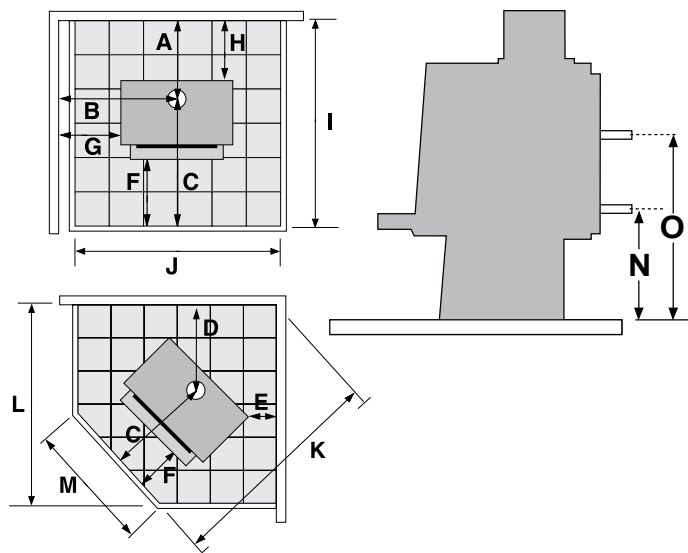
Some Metro models have undergone additional testing which allows for reduced clearances. Please see the footnotes below the tables for applicable models.

Specifications were correct at the time of printing, but may alter and those detailed within should be used only as a guide. If in doubt, please consult your Metro retailer.

Wetback connections

Connections below are taken facing the Metro/wall.

- Tiny models are 92mm left of the flue centre.
- The Wee Rad is 226mm left of the flue centre.
- Xtreme models are 275mm left of the flue centre.
- All other models are 140mm left of the flue centre.



Metro clearances and specifications (Minimum clearances shown are in mm, with a Pioneer double flue shield fitted)

| Clean Air Models | Minimum installation clearances with a Pioneer double flueshield fitted (mm) | | | | | | | | | | | | | Wetback | | Dimensions | | |
|------------------------------|--|-----|-----|-----|-----|-----|-----|-----|-----|-----|------|------|-----|---------|-----|------------|-------|--------|
| | A | B | C | D | E | F | G | H | I | J | K | L | M | N | O | Width | Depth | Height |
| ECO Tiny Ped | 210 | 430 | 580 | 290 | 25 | 200 | 185 | 60 | 790 | 650 | 990 | 875 | 250 | 280 | 470 | 490 | 530 | 665 |
| ECO Tiny Rad | 225 | 552 | 580 | 420 | 150 | 200 | 300 | 75 | 805 | 650 | 1165 | 925 | 250 | 280 | 470 | 505 | 530 | 665 |
| R1 | 243 | 774 | 586 | 554 | 280 | 244 | 530 | 100 | 829 | 825 | 1370 | 1118 | 425 | N/A | N/A | 488 | 485 | 668 |
| R2 | 246 | 858 | 626 | 582 | 275 | 235 | 570 | 100 | 872 | 905 | 1449 | 1203 | 505 | N/A | N/A | 575 | 537 | 690 |
| Wee Rad ¹ | 243 | 568 | 580 | 455 | 150 | 230 | 260 | 100 | 823 | 825 | 1224 | 1015 | 425 | 295 | 485 | 615 | 498 | 688 |
| ECO Wee Ped | 260 | 595 | 580 | 385 | 85 | 200 | 300 | 110 | 840 | 825 | 1120 | 950 | 425 | 295 | 485 | 590 | 530 | 665 |
| ECO Wee Curve DV | 300 | 555 | 580 | 405 | 100 | 200 | 250 | 150 | 880 | 825 | 1150 | 975 | 425 | 280 | 470 | 607 | 537 | 665 |
| Xtreme Ped | 251 | 624 | 630 | 441 | 110 | 227 | 280 | 100 | 881 | 907 | 1254 | 1065 | 507 | 349 | 539 | 688 | 554 | 721 |
| Xtreme Rad - Legs | 251 | 650 | 630 | 458 | 100 | 227 | 280 | 100 | 881 | 907 | 1277 | 1077 | 507 | 349 | 539 | 740 | 554 | 743 |
| Xtreme Rad - Base | 251 | 650 | 630 | 458 | 100 | 227 | 280 | 100 | 881 | 907 | 1277 | 1077 | 507 | 349 | 539 | 740 | 554 | 743 |
| ECO Euro Rad DV | 250 | 625 | 625 | 435 | 80 | 200 | 250 | 100 | 875 | 905 | 1240 | 1065 | 505 | 338 | 528 | 750 | 575 | 745 |
| ECO Euro Ped DV ² | 230 | 585 | 625 | 495 | 170 | 200 | 250 | 80 | 855 | 905 | 1325 | 1120 | 505 | 325 | 515 | 670 | 575 | 715 |

¹ Wee Rad corner clearance (E) can be reduced to 120mm with the Wee Rad corner wing shields fitted. This in turn also reduces clearances (D) to 425mm, (K) to 1180mm and (L) to 985mm. When fitting the corner wing shields the Wee Rad itself must be installed to a corner clearance (E) of 120mm. The corner wing shields are then fitted which gives a wall to shield corner clearance of 100mm.

² ECO Euro Ped corner clearance (E) can be reduced to 110mm if installed with a Pioneer double flue shield with the side extensions fitted. This in turn also reduces clearances (D) to 435mm, (K) to 1240mm and (L) to 1060mm.

WARNING! Important Information

- Do not connect to an unvented hot water system.
- Install in accordance with AS 3500.4.1 or NZS 4603 and the appropriate requirements of the relevant building code or codes.

If the home is in a classified "clean air zone", and dependent on requirements/restrictions which may be imposed by your local council, you may or may not be able to install a water heating device. If in doubt consult your local Metro retailer. Only Pioneer's cast jacket wetback system should be fitted to a Metro; alternative wetbacks will void the Metro's emission approvals and may seriously affect the performance of the appliance and void the owner's warranty.

Note: Wetback systems are not suitable for use in locations where the water supply has lime content, lime build up inside the coil will eventually block the coil causing the wetback to fail.

The wetback is fitted to the inside rear of the firebox, unless as detailed in the points below. The connection pipe heights are illustrated and detailed on the previous page 6. Please note:

- Wetback connections for the Tiny models are 92mm left of the flue centre. The Wee Rad is 226mm, Xtreme Rad, Xtreme Rad Base & Xtreme Ped are 275mm left of the flue centre. All other Metro models are 140mm left of the flue centre, facing the Metro/wall; the return pipe connection is directly above the inlet connection.
- The Wee Rad, Xtreme Rad, Xtreme Rad Base & Xtreme Ped wetback position is to the outside left hand firebox wall. See specific instruction in the 'Side Wetback' box for these appliances.
- Reduced height pedestals are available for certain models to reduce wetback connection heights.

- It is recommended the return pipe has a minimum rise of 1 in 12; performance will reduce as the distance to the storage cylinder increases.

To fit the wetback proceed as follows: (For Wee Rad model or any Xtreme Series model, then please follow instructions included in the side wetback box)

1. Remove the rear panel of the Metro by removing the four pozi drive screws. Remove the two pre-punched knockouts from this panel.
2. Two further knockouts will be visible on the inner rear heatshield; remove these also. Once these are removed 6mm nuts will be visible through the knockout holes.
3. Open the Metro's door and locate two bolts securing the pressed washers which are visible on the left hand side of the firebox for both inlet and outlet connection points.
4. A further three bolt heads will also be visible on the inside rear wall of the firebox; these are threaded into the 6mm thick firebox. Remove all three.
5. Using the tube of sealant supplied with the wetback, apply a liberal bead of sealant around both the two connection pipes and also the outer circumference of the wetback which will face the inside rear wall of the firebox. This will completely seal the wetback to the inside rear wall of the fire on installation.
6. Fit the wetback into the firebox and carefully pass the connection pipes through the holes in the rear of the firebox. Securely attach the wetback using the three bolts previously removed from the rear face of the firebox, fitting them through the slots provided in the wetback's jacket.
7. The wetback is now ready for connection to the storage cylinder by a registered plumber.

Flue installation

It is recommended that all Metro freestanding wood fires be installed with the energy efficient Metro ECO flue system which comes complete with a detailed installation manual. This installation manual must be presented with your application to gain consent with your local council.

A copy of the installation manual can be downloaded from www.metrofires.co.nz, or a copy can be obtained from your Metro retailer. Any alternative flue system must comply with and be installed as detailed in AS/NZS 2918:2001, and a copy of the installation manual must also be presented with your application to gain consent with your local council.

All Metro's require a 150mm diameter flue. Please note:

- All joints in the flue pipe must be sealed with Pioneer fire cement (or similar) and riveted.
- The base of the flue pipe must be sealed into the outlet of the Metro's flue outlet. This is critical for optimum operation.
- Refer "Important Information" on page 2.

- The flue systems 150mm diameter flue pipe must terminate a minimum of 4.6 metres above the top surface of the floor protector.

Pioneer Flueshield

All Metro's have been tested with a Pioneer double flue mounted shield. For the Metro to be installed with minimal clearances as the clearance chart states, only the Pioneer double mounted flue shield can be used. All other flue shields will invalidate the installation.

The Metro can be installed without a flue shield, if this is the case it needs to be installed as AS/NZS 2918:2001 stipulates.



WARNING! Important Information

- **WE HIGHLY RECOMMEND YOU READ THIS ENTIRE MANUAL AS INCORRECT OPERATION AND/OR LACK OF MAINTENANCE WILL VOID THE WARRANTY**
- Any modification of the appliance that has not been approved in writing by the testing authority is considered as breaching AS/NZS 4013 and will void the warranty
- Do not use flammable liquids or aerosols in the vicinity of this appliance when it is operating
- Never operate your Metro with the top grill removed
- Do not dry clothes on or near this appliance
- Do not use flammable liquids or aerosols to start or rekindle the fire OR store fuel within the Metro's specified installation clearances
- Never operate your Metro with the door ajar, except on initial start up
- Open the air control before opening the Metro's door

CAUTION! Important Information

- This appliance should be maintained & operated at all times in accordance with this instruction manual
- This appliance should not be operated with cracked door glass, over worn, faulty or missing door seals
- Do not use driftwood, treated or unseasoned (wet) fuel, the use of most types of preservative treated wood as fuel can be hazardous
- Do not empty ash into a combustible container

Congratulations on the purchase of your Metro wood fire

This low-emission, slow combustion appliance is designed to give you many years of warmth and service, subject to the following key factors. These key factors, if not adhered to are the major causes of unsafe installation, poor performance and flue blockages and product failure.

1. Your Metro wood fire must be installed correctly. Metro recommend a competent and suitably qualified installer.
2. The only fuel to be used in this appliance shall be wood that meets the following criteria.
 - Less than 25% moisture
 - Has not been treated with preservatives or impregnated with chemicals or glue,
 - Is not chipboard, particle board, or laminated board,
 - Is not painted, stained or oiled
3. The appliance shall be operated at all times in accordance with the "Installation and Operating Instructions" supplied with each appliance.
4. It is preferable that Metro wood fires should be installed with Metro ECO Flue Systems.
5. Coal must not be used as a fuel.

Please also note the following important points:

- In New Zealand a building consent is required from your local building authority. The homeowner is responsible for obtaining this consent.
- As correct installation is critical to the performance and safe operation of your Metro, it is recommended your Metro be installed by a registered installer or a person suitably qualified in the installation of wood fires. Your Metro retailer will be able to arrange professional installation for you.
- During the very first fire your Metro will give off an odour and fumes as the firebox paint cures. Do not be alarmed; open all windows and externally opening doors in that room and close any internally opening doors. This curing process will last for approximately one hour and is likely to happen this one time.

- Properly seasoned (dry) timber is necessary for the Metro to operate efficiently; firewood that contains a high moisture content will result in flue pipe blockages, reduce heat output and create other issues.

Note: Softwood usually takes 12 months to season - Hardwood can take up to 24 months to season - Wood must be stored in a location that enables air circulation. Unseasoned wood stored in a closed woodshed without air circulation will still be unseasoned 12 months later.

- It is critical that the fire not be operated with over worn, faulty or missing door seals. Door seals will harden over time and become over-worn (3-4 year's) this will cause air to leak into the fire, causing the appliance to 'over fire'.
- It is critical that the fire not be operated with over worn, faulty or missing bricks, baffle plate, baffle extension (white board on the baffle plate)
- It is critical that the fire not be operated with cracked, or broken door glass.

Please note, the above 3 points require regular inspection/ maintenance (every time the ash bed is cleaned out, generally 3-5 times a season) and if not maintained will void the firebox warranty. Please ensure you keep your proof of purchase/receipt on any parts you purchase.

- For optimum performance fuel must be loaded so the logs lay "front to rear" in preference to laying across the width of the firebox. Spaces should be left between the logs to enable oxygen to get to as much of the surface of the fuel as possible.
- A small hot fire loaded frequently is more efficient than a large fire burning on a low setting.
- Your Metro is covered by a full unconditional 12 month warranty on replacement parts, and a 10 year firebox

Where to install a Metro wood fire in your home

Wood fires are usually installed in the main living area, which is the section of the home that is usually kept the warmest, being the area in the home most frequently occupied. However, before deciding on the best location for your Metro wood fire you may wish to consider:

- Water heating. If you are intending to have a wetback it is important that the wood fire is as close as practically possible to the water storage cylinder.
- Split level homes are best heated when the wood fire is installed on the lower level, as the heated air will rise to the higher levels.
- Building construction is another consideration. Specified clearances from walls, curtains etc must be maintained and you need to ensure no structural beams or internal

gutters etc are directly above your preferred site. If you have a two storey dwelling you need to consider the second storey to ensure you don't have the flue directly outside a second storey window.

Generally, you can install your Metro in your home anywhere that suits you; Pioneer offer various fan systems to transfer heat to other sections of the home that are not heated sufficiently. It is necessary if using a fan system that the Metro you have purchased has sufficient output to heat the total area you wish to heat. Your Metro retailer or installer will be able to advise if you are uncertain.

Optional wetbacks

If your home is in a classified "clean air zone", and dependent on requirements/restrictions which may be imposed by your local territorial authority (council) you may or may not be able to install a water heating device. If in doubt consult your local Metro retailer.

Water heating is another key feature of your Metro wood fire, and on offer are a number of options depending on the model you have purchased. Metro offer a 2kW wetback suitable for the Tiny Rad and Tiny Ped. The ECO Wee Curve and Ambie One cannot be fitted with a wetback in a clean air zone, but they can both be fitted with a wetback if installed on a 2HA+ rural property. All other 'ECO' Metro's can be fitted with the ECO wetback.

The Side wetback is suitable for the Wee Rad, Xtreme Rad, Xtreme Rad Base & Xtreme Ped. Both R1 and R2 models cannot be fitted with a wetback at all.

Note: Wetbacks are not suitable for use in locations where the water supply has lime content. Lime build up inside the coil will eventually block the coil causing the wetback to fail.

Other considerations are:

- Distance from your Metro to the storage cylinder will affect the amount of hot water produced.
- Your climate & the manner in which you will 'fire' your Metro will determine the amount of hot water produced.

Cost Savings

Wetbacks can enable substantial power savings, dependent on the climate in the area in which you live. If you live in a cold climate you are likely to use your Metro for many months of the year, in which case a Pioneer wetback will reduce or even eliminate your water heating costs over those months. If however you live in a warmer climate and use your Metro for only a few hours a day over the colder months, electricity savings will be considerably less.

Water Pressure

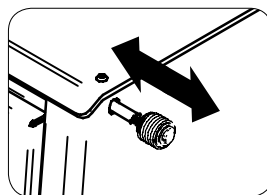
A common misconception is that you must have a low-pressure system to have a wetback; this is not true. You must have a "vented" system and high-pressure cylinders are usually not vented. However you can install an "indirect" cylinder which contains a secondary coil inside the storage cylinder, enabling you to have a wetback while retaining a high-pressure system.

Getting to know your Metro wood fire

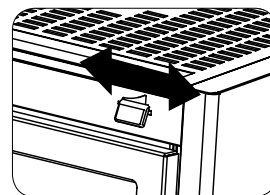
Operating your Metro wood fire is simple and you will quickly learn how to get the best from it. First take a minute to familiarise yourself with your new Metro.

- Raise the door handle anti-clockwise until the latch releases, then slowly pull the door open. You will note that if you let the door go before it is at 90° to the appliance, it will fall closed. This is a safety feature that ensures the door cannot fall open if it is not latched securely. For the door to remain open, you must open it fully.
- There is a single air control making your Metro easy to adjust. This control moves from left to right, which is "low to high".

The Metro Radiant fires have a wire air control handle located at the upper right hand side of the appliance. Simply pull out to increase burn rate or push in to reduce burn rate.



Radiant fires air control



All other fires air control

All other model Metro's have an air control knob located on the upper front of the appliance.

Slide this control knob gently from right to left until you reach a stop. This is a pre-set "low" position. Your Metro must not be operated at a lower burn rate than this pre-set low allows.

Operating your Metro wood fire

If your Metro has only been installed within the past few days, the fire cement seal at the base of the flue will not be fully cured. To ensure the cement sets without blistering it is recommended you burn 2-3 sheets of loosely crumpled newspaper at a time, approximately once every hour over a 6-8 hour period.

During the very first fire your Metro will give off an odour and fumes as the firebox paint cures. Do not be alarmed. Open all windows and externally opening doors in that room and close any internally opening doors. This curing process will last for approximately one hour and is likely to happen this one time.

Start up

Place a quantity of loosely crumpled newspaper on the base of the firebox until it is approximately 50% full of paper, or place firelighters on the base of the firebox. Add dry kindling and move the air control knob fully to the right, being the "full open" position.

Light the paper at two or three locations across the front of the door opening and leave the door slightly ajar resting on the latch pin if necessary for a few minutes while the fire establishes. Once the kindling is burning well, open the door and add 2-3 small logs at a time until you have a well-established fire. Usually this will take approximately 30 minutes, during which time the air control should be set on "high" and the door should be closed, except for the initial few minutes and when fuel is being added.

Normal operation

Once the fire is well established, regulate the air control to achieve the desired burn rate and heat output. As you move the air control to the right, burn rate, firebox temperature and heat output will increase, if you move the control to the left they will decrease.

Please note:

- Always open the air control fully prior to opening the door, then open the door slowly.
- When loading logs, place them end-on, "front to back"; air spaces should be left between the logs to enable oxygen to get to as much of the surface of the fuel as possible.
- Every time you refuel, leave the air control on "high" for a minimum of 20-25 minutes.
- Never use the door to force wood into the firebox, as this is likely to break the glass.

Cooking

All Metro's are designed to enable cooking of soups, stews and casseroles etc, and your Metro will easily boil a flat bottom stainless steel kettle. The Radiant Series have a dedicated cooking top enabling large pots to be placed on the cook top, while all other models have a lift-off grill.

Note: Metro's supplied with a lift-off top grill have this feature to enable the grill to be removed for cleaning if you have a spill. The lift-off top grill must be left on when cooking, because if removed the wall temperatures next to the appliance may become excessive and the top of the firebox is generally too hot to cook on directly. Please note: Although very durable, Metro's in a satin stainless look are not recommended to be used to cook on.

Cleaning and maintenance for your Metro wood fire

The Metro radiant fires are painted wood fires and coated with "Pioneer Metallic Black" high temperature paint and will require periodic repainting to keep them looking their best.

All other Metro's are coated with either vitreous enamel or a high temperature silver coating (HPC):

- Vitreous enamel is extremely durable and designed to last the life of the appliance. As vitreous enamel is glass, a solid or heavy object dropped or banged against a panel could chip the enamel surface.
- HPC coated Metro's are offered in a stainless steel look. Although very durable it is not recommended that Metro's with this finish be used to cook on.

All model Metro's can be cleaned with a cloth when the appliance is not operating.

Door glass

Providing your fuel is properly seasoned, under normal operating conditions the air-wash design of the Metro's firebox will keep the door glass clear. If the glass requires cleaning you may use either a razor blade scraper or an oven cleaner.

If your door glass breaks it must be replaced with 5mm thick ceramic glass which is available from your local Metro retailer.

Door seals

Over time, usually 3-4 years, the door and glass seals will become hard and cause air to leak into the firebox, causing the appliance to 'over fire'. Your Metro retailer stocks replacement woven fibreglass door and glass seals, which need replacing when they become hard and over worn.

The door of your Metro is easily removed. Hold it in both hands and lift the hinge end of the door up and over the top hinge pin, then lower the door from the bottom hinge pin.

Side bricks

Hair-line cracks are not uncommon and are a result of the intense heat within the Metro's firebox, coupled with mechanical damage caused by accidental impact when fuel is being loaded. However if the side bricks become cracked to the extent that they start to break up, they must be replaced.

Door adjustment

Provision is available on both sides of the door for adjustment.

To adjust the hinge end of the door, open the door fully, loosen the top hinge nut and slightly lift the latch end of the door; you will see the hinge assembly move back 1-2mm which will usually be sufficient. Retighten, then repeat by loosening the lower hinge nut, this time applying a slight downwards pressure onto the door to move the lower hinge assembly back a similar distance, then retighten.

The door latch is also adjustable, as the latch pin on the right side of the firebox is fitted through a slot which enables the latch pin to be loosened, moved back and re-tightened.

Ash removal

Over a period of time ash will build up in the base of the Metro's firebox and require removal. The time this build-up takes depends on the density and cleanliness of your fuel.

To remove the excess ash your Metro should not be operating.

- Open the door, and using a hearth shovel or similar, empty the excess ash directly into a steel or non-combustible container.
- If the ash is not disposed of immediately, be careful where you store it, as the ash can retain heat for many days and become a fire hazard.
- You must leave a bed of ash in the base of the firebox approximately 10mm deep; this insulates the base of the firebox and improves combustion.

Top baffle

This is a 'sacrificial' part of the firebox and should be checked monthly. Usually only the "Promet" (white board) front/ underneath section needs to be replaced when it starts to disintegrate.

Note: Cracks in the promet are not uncommon and have no adverse effect on the operation of your Metro. These cracks are the result of intense heat coupled with expansion and contraction. Burning wood which is not properly seasoned, i.e. 25% moisture content or more, will over time cause the promet to disintegrate and require replacement.

Flue systems

Should be checked annually, particularly the bottom end of the lower flue section at its rear lock formed joint. If deterioration is noticed contact your Metro retailer or installer.

The flue pipe should also be swept a minimum of once a year, or as required during the winter season. If smoke enters the room when you open the Metro's door this usually indicates the flue pipe is becoming restricted and needs cleaning. The frequency of flue pipe cleans depends on many factors, with the main variables being:

- The seasoning of the wood. If not properly seasoned you will require frequent flue pipe cleans.
- The density of the wood. Softwoods generally result in more creosote build-up in the flue pipe.

To clean the flue pipe of your Metro, proceed as follows:-

- Open the Metro's door fully, reach inside with the palm of your hand face-up and extended, lift the top baffle approximately 20mm, then lift it forward out through the door opening, placing it on a sheet of newspaper you have placed on the front of the floor protector.

Note: Some appliances have a two piece top baffle.

- Close the door and slide the air control to the left.
- Once on the roof, remove the cowl from the top of flue system and sweep the flue pipe using a 150mm-diameter flue pipe brush as detailed in the instructions provided with the fluebrush.
- Once the flue pipe is clear, clean and refit the cowl. Remove the excess soot which has fallen into the firebox, leaving a layer of ash 10mm deep on the base of the firebox, then refit the top baffle.

Note: The baffle must be fitted so its rear is touching the back of the firebox; if uncertain refer to page 3 in the installation section at the front of this manual, which shows illustrations of the baffle location.

Troubleshooting your Metro wood fire

If your Metro is installed correctly, your fuel is dry and you operate your fire correctly, you will find it to be a pleasure to use. Metro's many years of experience within the wood heating industry has shown that dissatisfaction is mainly due to:

- unseasoned fuel
- faulty installation
- operational error
- or a combination of the above 3 points.

The following may be of assistance if you are experiencing any of these problems.

SMOKE ENTERS THE ROOM WHEN THE METRO'S DOOR IS AJAR (Possible reasons and solutions)

Check flue pipe joins:

If the flue pipe joins are not sealed correctly, the flue pipe will not draw as well as it should. The flue pipe join connecting into the flue spigot on top of the Metro is most critical, if this is not sealed correctly, smoke will enter the room when the door is ajar. To check this join is sealed correctly, run a match or lighter flame around the join. If the flame is sucked into the spigot then it is not sealed correctly. This check needs to be done when the fire is not going. Ensure you check the rear of the flue pipe/spigot join, as due to the seam in the flue pipe, this is the most common area for not being sealed correctly.

Ensure the fuel you are using is correctly seasoned:

If you are burning unseasoned fuel (wet), the fire will cause nothing but problems. The Metro won't deliver much heat, it will be lazy, smoke will enter the room when the door is ajar, and the door glass will run black.

Flue pipe length is too short:

Add more flue pipe as the longer the flue system, the better the draw of the flue pipe. Please note, if you did not purchase the Metro ECO Flue System, you will not have the ECO Cowl which increases draw. We highly recommend the Metro ECO Cowl is fitted as this will increase the draw. If you already have an ECO Cowl and smoke is still entering the room, please add another 600mm length of flue pipe.

Downdraft:

If you have checked all of the above and the fire is still smoking into the room, it's possible there may be a down draft issue. Down draft can be caused by many variables, and it is purely trial and error to ascertain the cause. Solutions may be:

- 'H' Cowl, designed purely for downdraft issues, but if you have an ECO Cowl fitted as standard, you will also need to add another 600mm of flue pipe to compensate as the H Cowl is shorter in length.
- Directional Cowl, designed for high wind areas.

Air control setting:

Ensure the air control setting is on high before opening the door to reload, as this increases the draw up the flue pipe.

If your Metro did not smoke, but its starting too and is getting worse:

The flue pipe is in need of a clean. It is recommended that the flue pipe be cleaned every season, however if you are burning the fire on low a lot, or are using unseasoned fuel, flue pipe cleans will be required more frequently.

Correct operation:

Modern day wood fires need to be operated hard and fast, more so than low and lazy to ensure the firebox and flue pipe runs hot and efficiently. If the fire and flue pipe is up to temperature it will perform extremely well, the smoke will draw up the flue pipe with ease, and the fire will produce good amounts of heat.

If the fire is operated on low a lot of the time, the door glass will run black, the flue pipe will tend to block up more frequently and the fire will end up smoking into the room when reloading. It's better to have a small fire running hard and fast, rather than a big fire running low and lazy.

OTHER ISSUES YOU MAY EXPERIENCE

I can smell smoke in the room after a low burn cycle:

The smell is creosote that will be seeping through the flue pipe join or out of the flue spigot onto an external surface, thus creating the smell in your room. The cause will be either unseasoned fuel or incorrect operation on low burn cycles. Creosote is very corrosive and excessive buildups will result in the flue pipe and potentially the flue spigot and upper burn chamber failing. Failure of flue pipe or firebox due to creosote build up is not covered under warranty as excessive creosote build up is only possible from either unseasoned fuel or incorrect operation.

The Metro is noisy as it heats up and cools down:

There will always be some expansion and contraction noise as the Metro heats and cools. This can usually be reduced by loosening three nuts at the rear of the appliance. To remedy, locate the 25mm deep cavity at the rear of your Metro between the 'rear panel' and the 'inner rear heat shield'. You will see a 6mm nut and two 6mm bolt heads in this cavity. Using a 10mm ring or open ended spanner, loosen all three so they are finger tight only.

On all non-DV model Metro's the air channel that allows the combustion air to enter the fire is fitted to the top underneath of the door opening. It is fitted with two M6 bolts. Slightly loosen both of these bolts. Note: This does not apply to the ECO DV models.

The Metro won't turn down as much as it did

The door itself may need readjusting, the hinge and latch is slotted and allows for movement. Loosening the hinge and moving it back a few mm will make the door seal tighter and stop air leaking into the fire. The door and glass seals may be in need of replacing, which is generally required every 3-4 years.

Familiarise yourself with the instructions on page 11 before proceeding with this maintenance.

Warranty details for your Metro wood fire



Metro wood fires are manufactured in New Zealand, using the highest quality of materials, workmanship and the latest manufacturing techniques, which is why we offer a full 10 year firebox warranty and 1 year parts warranty for peace of mind.

METRO WARRANTY (NZ Consumer laws apply to this warranty)

Pioneer Manufacturing Limited (Pioneer) warrants the steel firebox against defective materials and workmanship which would render it unfit for normal domestic use, from the date of purchase by the original consumer, for a period of 10 years.

Components including panel coating, door retainers, door seals, glass, trim, baffle & bricks are warranted for a period of 1 year from the date of original purchase for domestic use against defective materials and workmanship.

All associated accessories including, but not limited to, fans, flue systems, flue shields, wetbacks, tool sets, ash pots etc, are covered by a 1 year warranty against defective materials and workmanship.

It is recommended, but not a condition of this warranty, that a full service/inspection of the Metro wood fire be carried out at the end of each winter season.

Warranty Conditions:

- The Metro wood fire must be installed, operated and maintained strictly in accordance with the building code and this installation and operation manual.
- The Metro wood fire must be installed and used in a domestic application.
- This warranty covers appliance like for like replacement or repair at the manufacturer's discretion but excludes freight, travel, installation, labour and/or any other associated costs.
- Pioneer or their agents are not liable for any loss or expense direct or indirect arising from the failure of any part or operation of the appliance.
- Operation of this appliance in violation of the warnings in this operation and installation manual will void this warranty.
- Your Metro wood fire must be regularly maintained and we recommended it is also serviced annually. Proof of servicing may be required. If a wood fire is not regularly maintained and serviced, the life span will be reduced. If your Metro wood fire has been neglected, by not being regularly maintained and serviced, warranty may be declined.

- It is critical that the fire not be operated with over worn, faulty or missing door seals. Door seals will harden over time and become over-worn (3-4 year's) this will cause air to leak into the fire, causing the appliance to 'over fire'.
- It is critical that the fire not be operated with over worn, faulty or missing bricks, baffle plate, baffle extension (white board on or under the baffle plate)
- It is critical that the fire not be operated with cracked, or broken door glass.



IMPORTANT INFORMATION

Note: The above 3 points require regular inspection/ maintenance (every time the ash bed is cleaned out, generally 3-5 times a season) and if not maintained will void the firebox warranty. Please ensure you keep your proof of purchase/receipt on any parts you buy.

- A claim under this warranty should be directed to the retailer who supplied the Metro wood fire. If this is not possible write directly to the manufacturer stating details of fault, model and serial number of your Metro, date and proof of purchase and name of retailer where the Metro was purchased.

Warranty Exclusions:

This manufacturer's warranty does not cover:

- Service calls which are not related to any defect in the product (i.e. operational, installation or fuel issues). The cost of a service call will be charged if the problem is not found to be a product fault.
- Defects caused by factors other than normal domestic use or use in accordance with the product's operation manual.
- Defects caused through the product being operated in an "over-fired" manner resulting in sections of the firebox operating excessively hot to the point that sections glow red. (Note - This will result in distortion of the firebox)
- Defects to the product caused by accident, neglect, misuse or act of God.
- The cost of repairs carried out by non-authorised repairers or the cost of correcting such unauthorised repairs.
- Required maintenance as set out in this manual.

Service under this manufacturer's warranty must be provided by a repairer authorised by Pioneer Manufacturing Ltd. Such service shall be provided during normal business hours.



WARNING! Complete and retain these details at time of purchase:

Purchase Date

Serial Number

Model

Colour

Retailer



Metro Wood Fire Specifications

Metro have a Specifications Brochure available which details relevant compliance data for every model. This brochure is updated annually and details the minimum clearances and specifications for all models, which is generally required when applying for a building consent. See your Metro retailer to obtain a copy, or visit www.metrofires.co.nz

metrofires.co.nz

Visit the Metro website: www.metrofires.co.nz to view Metro's 'video demos' showing the latest in wood fire technology energy saving options. You can view the entire Metro product range, find out where your nearest Metro retailer is located or simply check out the latest specifications, installation requirements and emission and efficiency data for the Metro of your choice.

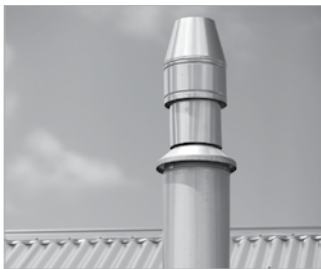


Pioneer heating accessories

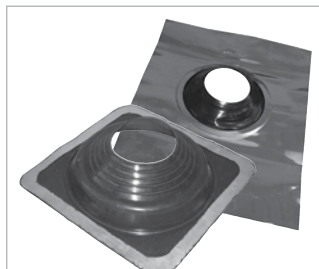
Metro Accessories

Metro offer a range of heating accessories designed to compliment your Metro wood fire. See below for some of the products within our heating accessory range.

This range of accessories includes floor protectors, heat transfer systems, child guards, baffles, bricks and more. For further details ask your Metro retailer for a copy of the Metro heating accessories brochure, or visit www.metrofires.co.nz



ECO Flue Systems



Flashrites and Versatiles



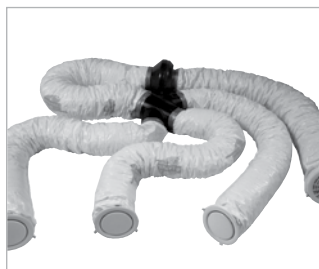
Wetbacks



High Temperature Paint



Child Guards



Heat Transfer Systems



Universal Door Seal Kits



Fire Cement And Silicone



Corner and Wall Floor Protectors



Glass Tape



Door Seal Rope



Chubb Smoke Detectors

Parts guide for your Metro – Baffle, promet and wetback

Listed below are the parts and product codes for your Metro wood fire. The promet/baffle should be regularly checked and must always be in place during the operation of your fire.

Note: Cracks in the promet are not uncommon and have no adverse effect on the operation of your Metro. These cracks are the result of intense heat coupled with expansion and contraction and is normal wear & tear.

Your Metro wood fire must be regularly maintained and we recommended it is also serviced annually. If a wood fire is not regularly maintained and serviced, the life span will be reduced. If your Metro wood fire has been neglected, by not being regularly maintained and serviced, with parts replaced as required, your warranty may be declined.

| Clean air models | | Type of promet required / Type of steel baffle(s) required | | Water heating options |
|--|--|---|--|---|
| <ul style="list-style-type: none"> • ECO Tiny Ped • ECO Tiny Rad | | ECO Tiny 500-1550  | ECO Tiny Complete 500-2050  | ECO 2kW Booster 450-0050  |
| | | Wee/R1 Set 500-2005  | Wee/R1 Complete 500-2505  | No wetback can be fitted |
| <ul style="list-style-type: none"> • R1 | | Xtreme/R2 Set 500-2010  | Xtreme/R2 Front 500-2510  | Xtreme/R2 Rear 500-2515  |
| | | | | No wetback can be fitted |
| <ul style="list-style-type: none"> • R2 | | Wee/R1 Set 500-2005  | Wee/R1 Complete 500-2505  | Side Wetback 450-0275  |
| | | | | |
| <ul style="list-style-type: none"> • Wee Rad | | ECO Small 500-1650  | Wee Curve Complete 500-2150  | No wetback if this fire is installed in a clean air zone. The LTD wetback can be fitted in a non-clean air zone. LTD 3kW Wetback 450-0100 or LTD 4kW Wetback 450-0150 |
| | | | | |
| <ul style="list-style-type: none"> • ECO Wee Curve DV | | ECO Small 500-1650  | ECO Small Complete 500-2100  | ECO Wetback 450-0450  |
| | | | | |
| <ul style="list-style-type: none"> • ECO Wee Ped | | Xtreme/R2 Set 500-2010  | Xtreme/R2 Front 500-2510  | Xtreme/R2 Rear 500-2515  |
| | | | | Side Wetback 450-0275  |
| <ul style="list-style-type: none"> • Xtreme Rad [LEGS] • Xtreme Rad [BASE] • Xtreme Ped | | ECO DV 500-1750  | ECO DV Complete 500-2200  | No wetback if this fire is installed in a clean air zone. The LTD wetback can be fitted in a non-clean air zone. LTD 3kW Wetback 450-0100 or LTD 4kW Wetback 450-0150 |
| | | | | |
| <ul style="list-style-type: none"> • ECO Euro Rad DV | | ECO DV 500-1750  | ECO DV Complete 500-2200  | ECO Wetback 450-0450  |
| | | | | |
| <ul style="list-style-type: none"> • ECO Euro Ped DV | | | | |
| | | | | |

